



PATENT  
Attorney Docket No. 401584/AOYAMA

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

MAEDA et al.

Application No. 10/080,697

Filed: February 25, 2002

Art Unit: 2131

Examiner: Unassigned

For: AUTHENTICATION-SELECTION  
SYSTEM, AND AUTHENTICATION  
SYSTEM

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**PENDING CLAIMS AFTER ENTRY OF  
SUPPLEMENTAL PRELIMINARY AMENDMENT** Technology Center 2100

1. An authentication-selection system comprising:  
a storage device storing a target-performance required for authenticating a person; and  
an authentication-means selector which selects one from among a plurality of authentications and at least one combination of said authentication means satisfying the target-performance.
2. The authentication-selection system according to Claim 1, further comprising:  
a combination generator which generates a plurality of authentications and at least one combination of said authentication means; and  
a calculator which calculates authentication performance for each of said plurality of authentications and the at least one combination of said authentication means.
3. The authentication-selection system according to Claim 2, further comprising:  
a target-performance setter which sets the target performance; and  
a limiting-condition setter which sets a limiting condition for said authentication means, wherein  
said combination generator generates the plurality of authentications and the at least one combination of said authentication means, based on the limiting condition; and

said authentication-means selector selects one among the plurality of authentications and the at least one combination of said authentication means, based on the limiting condition.

4. The authentication-selection system according to Claim 3, wherein the limiting condition includes at least one of:

- a plurality of kinds of said plurality of authentication means;
- a priority in said plurality of kinds of said plurality of authentication means;
- a combination of the plurality of authentications;
- priority in the combinations of authentications;
- number of the plurality of authentications for combination;
- priority in the number of authentications for combination; and
- number of candidate combinations.

5. The authentication-selection system according to Claim 1, further comprising:

- a performance storage device for storing authentication performance of said authentication means; and

- a log-analyzer for analyzing log data which are authentication results of said authentication means, and for reflecting analysis results on the authentication performance of said authentication means.

6. The authentication-selection system according to Claim 5, wherein said performance storage device stores authentication performance for each registrant.

7. The authentication-selection system according to Claim 1, wherein the authentication performance of said authentication means includes at least one of:

- a probability density function of a matching score indicating degrees of coincidence between input data and registration data in a case where a person is a registrant;

- a numerical table;
- a probability distribution; and
- a parameter for approximation by a normal distribution.

8. An authentication system comprising:

- the authentication-selection system according to Claim 1 for selecting one among a plurality of authentications and at least one combination of the authentications; and

at least one of a plurality of authentication means for authenticating a person by verification of input data of persons with registration data, wherein authentication of a person is performed by said authentication selected or by the combination of the authentications selected.

9. A selecting method for selecting one among a plurality of authentications and at least one combination of the authentications, the method comprising:

generating at least one combination of authentications using authentication means for authenticating a person;

calculating and storing authentication performance for each of the plurality of authentications and the at least one combination of authentications; and

selecting one among the plurality of authentications and of the at least one combination of the authentications, which meets target performance required for authentication.

10. An authentication method comprising:

generating a plurality of authentications and at least one combination of the authentications;

calculating and storing authentication performance for each of the plurality of authentications and the at least one combination of the authentications;

selecting one among the plurality of authentications and the at least one combination of the authentications, which meets target performance required for authentication; and

authenticating a person after verification of input data of the person with registration data in the authentication, or the combination of the authentications.

11. An authentication-selection program executed on a computer, the program comprising the selecting method for selecting one among a plurality of authentications and at least one combination of the authentications according to Claim 9.

12. A computer-readable recording medium including the authentication-selection program according to Claim 11.

13. An authentication program executed on a computer, the program comprising the authentication method according to Claim 10.

14. A computer-readable recording medium including the authentication program according to Claim 13.